

## SKILLS ↗

Language	Java, Python, C, C++, Solidity,Git, L <sup>A</sup> T <sub>E</sub> X, C#, Bash,PHP, JavaScript, Matlab, SQL
Frontend	HTML5, CSS, JS, Bootstrap, React
Backend	Flask, Django, ASP.NET Core, Node.js
Database	MySQL, Firebase, MongoDB
IOT & Robotics	Arduino, Raspberry PI, Jetson Nano & Xavier, LIDAR, ZED-Stereo Cam, ESP-32,PX4 (Pixhawk),ROS,ROS2,MAVROS
App Development	Flutter, Dart
Soft Skills	English (business), Bengali (business), Public Speaking, Extempore Speech
Pentesting Tools& OS	Burp Suite, Metasploit, NMap, SQLMap, Wireshark, Nessus, John The Ripper, Hashcat, Dirb, Volatility, Parrot OS
Other	DSA, OOP, Containerization, Networking & Linux, PyTorch, Azure, CI/CD, TensorFlow, Git, Docker, Office Tools

## PROJECTS | CERTIFICATIONS ↗

**Software & Autonomous System Developer 2021 - ongoing**  
*Mars Society's University Rover Challenge (URC)* *USA*  
*Anatolian Rover Challenge (ARC)* *UKET, Turkey*

- Developed an autonomous rover system with my team for URC-2021 competition **champion globally beating 88 teams**. [Link](#).
- Upgraded the autonomous rover system for ARC-2022 competition **became third among 14 final contestant countries** .[Link](#)
- Software & Autonomous Team Lead For URC-2023 & ARC-2023 (2nd in Asia, 5th Globally)

**Pretrained CNN-based Dog Classifier** |[Code](#)|[Certificate](#)

Tech Stack [Python,ResNET,VGG16, Machine Learning](#)

**NLTK LSTM Based HateSpeech Detection** | [Code](#)

Tech Stack [ML, NLP, LSTM, Python](#)

**Bus Counter Management System Using JavaFX** | [Code](#)

Tech Stack [Swing, JavaFX, Java](#)

**MERMS** | [Code](#)

Tech Stack [HTML, CSS, React.JS, Vue.js, PHP, OracleDB](#)

**Simple weight machine using HX711 and Arduino** | [Code](#)

Tech Stack [Arduino, IOT, HX711 sensor](#)

**SoccerBot**

Tech Stack [Arduino,C++](#)

**DekhboKinbo** | [Code](#)

Tech Stack [C#, .NET Core MVC,Entity, MySQL](#)

**Alumni Information Management System** | [Code](#)

Tech Stack [C#, MySQL](#)

**Blockchain-based Land Record management system with biometric authentication** | [Blockchain \(Contract\)](#) | [Website](#)

Tech Stack [Blockchain, Django, Arduino, IOT](#)

**PyTorch-Create Your Own Classifier** |[Code](#)|[Certificate](#)

Tech Stack [Python, CNN, Machine Learning, AWS, Udacity](#)

## RESEARCH & PUBLICATIONS (5+) ↗ | SCHOLAR ↗

- DeepTriNet: A Tri-Level Attention Based DeepLabv3+ Architecture for Semantic Segmentation of Satellite Images.[Link](#) [got the best paper award]
- Performance Analysis of Various EfficientNet Based U-Net++ Architecture for Automatic Building Extraction from High Resolution Satellite Images.[Link](#)
- CycleGAN-Based Data Augmentation with CNN and Vision Transformers (ViT) Models for Improved Maize Leaf Disease Classification.[Link](#)
- Biomolecular Analysis of Soil Samples and Rock Imagery for Tracing Evidence of Life Using a Mobile Robot [Accepted at ICRAIE - 2023]
- Enhancing Mango Leaf Disease Classification: ViT, BiT, and CNN-Based Models Evaluated on CycleGAN-Augmented Data [Accepted at ICCIT-2023]
- SecureLandChain: A Blockchain-Based Land Registry System with Biometric Authentication and Certificate Verification System [Submitted for a Q1]
- Automatic Literature Review Generation : An Improved LLM-RAG Based Solution Embedded With Regex and T5. [Thesis]

## EXPERIENCE ↗

**Internship**

*Brainstation 23*

**Jan 2023 - Feb 2023**

*Mirpur DOHS*

- Got hands on training on C# and ASP.NET MVC through Brainstation 23's LMS. During the course, I completed one desktop application project and two web-based projects using ASP.NET .

**Capture The Flag (CTF)**

[TryHackMe](#)

*Mentor (Later Vice-President), MIST Cyber Security Club*

- Certified for "Junior Penetration Tester" [[link](#)]
- Certified for "Attacking Active Windows Directory"[[link](#)|[Badge](#)].
- Became top 4 % on TryHackMe globally . [[link](#)]
- Mentor at MIST Cyber Security Club
- 24th place nationally as team lead in LeetCon CTF 2023.
- Achieved 79th place globally in Kaspersky codebreakers CTF.
- Global rank 97 at BlackHatMEA 2023 CTF Finals[[link](#)]

[Stackoverflow](#) ↗ |[AskUbuntu](#) ↗

*Provided 4 solutions*

- Solution links : [1](#) [2](#) [3](#) [4](#)

**Competitive programming**

**2020 - Present**

- Solved over 250+ problems on GeeksForGeeks, Codeforces and Leetcode

## EDUCATION ↗

**B.Sc in Computer Science and Engineering** **2020 - 2024**

*Military Institute of Science and Technology*

**Higher Secondary School Certificate**

**2017 - 2019**

*Barishal Cadet College*